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### NOTULAE REMINGTONIO OBLATAE

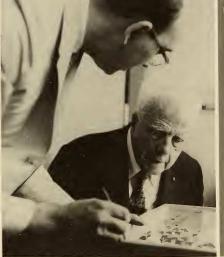
LAWRENCE F. GALL

Entomology Division & Computer Systems Office, Peabody Museum of Natural History, Yale University, New Haven, Connecticut 06511, USA

Over time, each scientific discipline passes through moments that alter its focus and course. One such defining moment for the study of butterflies and moths came in 1947, when the Lepidopterists' Society was hatched at Harvard University under the watchful tutelage of Charles Lee Remington and Harry Kendon Clench (the Society's home base moved shortly thereafter to Yale University, where Charles continued to shepherd the fledgling group through its early metamorphoses in the 1950s). Today, nearly half a century later, the Lepidopterists' Society still prospers even as some other similar organizations have waxed and waned. In no small part, the Society can trace its vitality to a long tradition of fostering collegial interaction among all segments of its membership. Harry and Charles both personified this commitment to "... facilitating the exchange of specimens and ideas by both the professional worker and the interested amateur ...." (from their letter of 24 March 1947 inaugurating the Lepidopterists's Union, as the Society was initially known).

The idea for a Remington issue of the Journal of the Lepidopterists' Society began to take shape early in 1992. At the time, I was in the midst of planning a mid-year bash in New Haven for Charles, who was retiring as Professor of Biology and Forestry & Environmental Studies, and Curator of Entomology at the Peabody Museum, after 44 years of service to Yale University. In that context, it seemed appropriate to acknowledge Charles' contributions to the Society via the Journal, as had been done posthumously for Harry in 1980. The authors who have contributed herein are all students of Charles' at one or another level, or several levels, and their papers stem from talks presented in an honorarial symposium at that 1992 event (they have been given





# The Lepidopterists' News THE NORTHLY NEWSLITTER OF THE LEPIDOPTRISTS' SOCIETY DO BUILD COMPLETE R. Macadadian

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latitude to depart somewhat in style and substance from the straight and narrow).

In introducing this issue, I will omit a biography of Charles and the earliest history of the Society, as both are available elsewhere e.g., in the *Lepidopterists' Society Commemorative Volume (1945–1973)* and Issue 2, Volume 34 of the *Journal* for 1980. Rather, I would like to point briefly to a few aspects of Charles' persona that I feel have helped him contribute so richly to lepidopterology, and science in general. A foreshortened bibliography of Charles' principal scholarly publications can be found at the end.

I should make it clear from the outset that, although he is nominally and officially "retired," I would scarcely consider Charles to be "retiring" in even the remotest sense of the word. That label will never fit the man. As I write this, he is: completing a third year of developing and teaching a new and popular course on endangered species with Tim Clark at the Yale School of Forestry & Environmental Studies; preparing a book on lepidopteran conservation with Bob Pyle; inaugurating baseline arthropod sampling surveys in a new shoreline park that he helped to establish in the city of New Haven; assisting in the launch of the Connecticut Butterfly Atlas Project, a five-year effort to record and georeference the occurence of the state's butterfly fauna; researching novel aspects of insect color vision with Gary Bernard at the Yale School of Medicine.... I'll stop there arbitrarily.

Take note of three themes interwoven in the paragraph above: (1) Charles habitually innovates and explores uncharted territory; (2) he has diverse and eclectic pursuits; and (3) he draws himself and others into synergistic collaboration. These characteristics, along with his broad base of acquired comparative biological knowledge (he is indeed one of those rare naturalists with a world perspective on most groups of living creatures), have for years enabled Charles to energize people of all stripes. In the lead article below, Ward Watt, one of Charles' first graduate students, defines, analyzes and discusses the importance of this "Remingtonian tradition" as an empowering paradigm for mentoring and conducting research. Evidence for Charles' success with this model can be seen in Table 1, which lists students who obtained their

FIG. 1. Remingtonian reminiscences. Clockwise from top: a reunion in 1992 for Bob Pyle (left), Charles Remington (center), and Lincoln Brower (right); the mimeographed *News* of May 1947, first publication of the Lepidopterists' Society; adult *Celerio lineata* (Fabr.) and friends lined up in tribute; the poet, Robert Frost, absorbing a few pointers on hybridization theory from Charles in the collection rooms at the Peabody Museum of Natural History, Yale University. Photography courtesy of Paul and Sandy Russell, William Sacco, and Charles.

Charles files and recollection.  Subject    Individual  Individual  Subject    Th.D. degrees (Remington as principal adoisor)  Subject  Subject    Ph.D. degrees (Remington as principal adoisor)  Subject  Subject    Shigeru A. Ae  Subject  Subject    Shigeru J. Burder  Solid functor supplicy of the Papitic glaucus group  Subject and succes and bird behavior    Lincoln P. Brower  Experimental analysis of minuch behavior  Experimental analysis of minuch behavior    Lincoln P. Brower  Expontitionary biology of the Papitic glaucus group  Ecology of mountain geats    Douald S. Claw (Brywan)  Ecology of mountain geats  Ecology of mountain geats    Douald S. Claw (Brywan)  Ecology of mountain geats  Ecology of mountain geats    Lances (Taylony*  Ecology of mountain geats  Ecology of mountain geats    Lawarot L. Coldstein  Ecology of mountain geats  Ecology of mountain geats    Lawarot L. Coldstein*  Ecology of mountain geats  Ecology of mountain geats    Lawarot L. Coldstein* </th
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Individual	Subject
Ph.D. degrees (Remington on doctoral committee), and other graduate degrees	ttee), and other graduate degrees
Carol A. Abruzzese*	Pitcher plant pollinators
Robin Absher	Molecular geography of Lemur fulvus
George D. Amato	Molecular biology of vertebrate conservation
Diane M. Beaudoin	Adaptive divergence of <i>Drosophila</i> behavior
Peter P. Blanchard*	Island entomofauna of Maine
Richard L. Borowsky	Size and growth rates in fish
Andrew Van Zandt Brower	Danaid butterfly systematics
Philip V. Brylski*	Biogeography of island owls
Alice Louise Bull	Drosophila embryology
Joan R. Burchenal*	Dragonfly naiad antennal morphology
Adalgisa Caccone (Powell)	Systematics and molecular genetics of cave crickets
Tchaw-ren Chen	Karyology of teleost fish
Terry L. Chester*	Experimental analysis of mantid predation
Raymond D. Clarke	Autecology of Fowler's toad
Marlene B. Cole*	Alien desert flora and Welwitschia in Namibia
W. Floyd Conner*	Territorial ecology of dragonflies
Matthew A. Cronin	Molecular systematics of deer
Dean R. Cummins	Troglobitic crayfish
David C. Culver	Cave Collembola
Change-feng Dai	Coral biology in southern Taiwan
Amy R. Dumas*	Nature interpretive education
Michael Gregonis*	Museum entomology, Lepidoptera
Melissa M. Grigione*	African and other manatees
Achyut Gyawali*	Natural history museum design for Nepal
Mark Harding*	Museum entomology, Coleoptera
Willard D. Hartman	Sponges of Long Island Sound
Daniel J. Howard	Evolutionary ecology of crickets
Jennifer A. Jacoby*	Nature preserve interpretive education
Michael S. Johnson	Stickleback fish molecular genetics
Charles J. Kara*	Mountain top African insects

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TABLE 1. Continued.

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y)* nior Honors Theses	New England warbler niche ecology Neotropical fig insects Human populations Tiger beetle and Lepidoptera museology Triassic fossil ecology Sphinx moth classification Goyote museology Charles Darwin's embryology Charles Darwin's embryology Charles Darwin's embryology Gigantism and dwarfism in island vertebrates Ecology of cowbird egg patterns Bovid adaptive allometry Costa Rica sphinx moth ecology Red wolf biology and conservation Museum science Insects of Isle Royale Hormones and steriodogenic ovarian signals Madagascar Aye-aye biology Island biography of Aegean birds Transisthmian birds Transisthmian birds Transisthmian birds Transist paleoentomology, Diptera Triassic paleoentomology
Elizabeth M. S. Andrews 94 Kenneth K. Asplund '61* May R. Berenbaum '75* Elizabeth W. Bokman '88 Covote a	Ants and seed predator insects in Colorado <i>Helianthella</i> Garter snake biogeography Foodplant biology of Chrysomelidae Covote and wolf skull comparisons

Linda Carr '62	Papilio biology, insect palatability to birds
onathan A. Coddington '73*	Spider paleontology
Sara I. Cohen '94	Global population, male sexual attitudes
ohn R. Cooley '90	Biochemical phylogeny of insect orders
ohn G. Coutsis '56	Antillean lepidopterology
Bruce E. Davis '83	Butterfly geography, vertebrate biomechanics
Mark W. Dickinson '78	Paleoichthyology, medical bioengineering
Alice W. Doolittle '89	Manual for museum education
Michael A. Dora '89	Field ecology of caddisflies
L. F. Boker Doyle '53	Butterflies of Fisher Island
Thomas P. Ducker '75	Arthropods and evolution
Barbara Gastel '74	The DNA age in society
ames R. Gorman '87*	Human behavioral immunology
William L. Krinsky '67*	Insects and medicine
Frederick D. Krupp '75	Legal solutions to environmental crises
Katarzyna S. Kubzdela '90	Wolf ecology
Krista L. Longnecker '93	Marine invertebrate ecology, Limulus vision
Thomas E. Lovejoy III '64*	Spring territory in Nymphalis
Timothy D. Male '92	Entomofauna of Greater Gull Island
Ryan W. McCue '95	Insect soil fauna of <i>Phragmites</i>
Adam C. Messer '80*	Insects of Moluccan islands
Andrew O. Miller '93	Arizona entomology
Adam R. Moore '92	Experiments with insects and pesticides
N. Ronald Morris '55*	Tyrosine-tyrosinase control of Cynthia wing patterns
Daniel P. Muhonen '57	Butterflies of Idaho, Colorado, and Arizona
Eugenia F. deS. Naro '94	Sea turtle biology in Brazil
Thomas Niemann '79	Entomogeography of Newfoundland
Alfred T. Ogden '94	Hybrid experimental analysis of birch and aspens
Krista L. Olson '92	Endangered sea turtles, biomedicine
David C. Oren '74*	Insect biology, Hyrax ethology
Gustav Paulay '79*	Insects of Rapa Island
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TABLE 1. Continued.

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Subject	Insect palatability to Colorado birds	Insect cave biology	Colorado moth biology	Molecular genetics of butterflies	Endangered species of island organisms	Pollination and genetics in Colorado Delphinium	Insect conservation in Cape Cod	Yankee sexuality	Diagnostic tools for human digestive disorders	Plant ecology of Pelham Bay Park	Geographic ecology of muskrat skulls	Palatability of tropical roahces	Physiology in marine stress environments	Bush medicine	Environmental activism, fungus culture	African mammal biology, biomedicine	Tertiary paleoentomology
Individual	Judy Penny `62	Jennifer Pett-Ridge '93	James W. Porter 69*	Robert A. Raguso '87*	Megan M. Reilly '95	Jessica R. Ruvinsky '95	Benjamin A. Salisbury '92	Gail C. Schwartz '74*	Aaron P. Scott '89	Mary M. Shaffer '86	Janine E. Shissler '91	Sacha H. Spector '93	Pamela C. Steele '79	Krenin K. Stowe '81	Matthew M. Taylor '92	Wendy Todaro '89	Scott W. Wing '76*

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TABLE 2.      Estimated present holdings of the collections amassed by Charles Remington
and his associates in the Entomology Division at the Peabody Museum of Natural History,
Yale University. From a 1990 collections survey conducted by divisional staff. Numbers
are rounded, inc = incomplete.

Entotrophi	inc
Microcoryphia	inc
Thysanura	inc
Ephemerida	260
Odonata	4,440
Plecoptera	520
Embiaria	10
Dermaptera	310
Blattaria	1,200
Isoptera	70
Mantodea	340
Orthoptera	3,600
Phasmatodea	130
Grylloblattodea	1,450
Zoraptera	10
Corrodentia	20
Phthiraptera	10
Thysanoptera	20
Hemiptera	23,520
Megaloptera	510
Raphidiodea	240
Neuroptera	5,040
Coleoptera	114,400
Strepsiptera	90
Hymenoptera	36.740
Mecoptera	400
Diptera	46,780
Siphonaptera	inc
Trichoptera	1,970
Lepidoptera	250,030
unsorted	27,790
Semi-curated holdings (all groups)	279,850
Acquired since 1990 (all groups)	105,000
Estimated total	904,750

university degrees and/or initial training under his guidance, including their topic of research at the time.

Charles has also always stressed the importance of collecting and collections as irreplaceable tools for exploring evolutionary processes. The nearly one million specimens in the Entomology Division at the Yale Peabody Museum largely reflect four decades of effort on the part of Charles, his students and colleagues. Peabody ranks among the two dozen largest entomological collections in the United States and Canada (see S. E. Miller, 1991, *American Entomologist* 37:79; and Table 2). However, size alone does not guarantee that a collection will signifi-

cantly advance science. Charles knew this well when he began as Curator of Entomology in the 1950's, and he set out to acquire material on the philosophy that a university collection must serve as a resource that contributes intimately to the dual missions of teaching and research.

Toward that goal, Charles amassed collections at Peabody that offer taxonomic breadth for comparative work, taxonomic depth for microevolutionary studies, and in general illustrate ecological or evolutionary principles by emphasizing patterns of naturally occuring variation in invertebrate populations. To paraphrase him on these three points: be sure you keep at least one specimen of each different taxon that you have the opportunity to collect or acquire; make large collections of different exemplary taxa from several geographic parts of their ranges; sample as many taxa as possible from unique habitats and ecosystems (e.g., island chains, bogs, ridgetops); and sample for unusual evolutionary characteristics and intrigue (e.g., polymorphs, gynandromorphs, size variants). Although the Lepidoptera are certainly the strongest suit in the Peabody collections, Charles' acquisition philosophy has yielded synoptic or better representation of most arthropod groups, often down to the family or generic level.

Charles has also sought specimen material with special theoretical. historical and/or regional significance, and maintained particular vigilance for collections either "orphaned" or in various states of divestiture. Thus, for example, Peabody has significant holdings in the insect groups (e.g., Abraxas moths, corixid bugs) that caught the eye of the late G. Evelyn Hutchinson, a close friend of Charles' and a principal architect of much of modern-day ecological and evolutionary theory. Peabody also recently became home for the entomological collections of the United States Forest Service's Northeastern Experiment Station (85,000 specimens; rich in parasitic hymenopterans), and the Lepidoptera collection of the Bridgham family from Rhode Island (1,800 specimens; a source utilized for type descriptions by W. H. Edwards, A. R. Grote, and their contemporaries in the 19th century). Because of Charles' close involvement in the early decades of the Lepidopterists' Society, the Peabody is also the repository, in whole or part, for the personal collections of a number of lepidopterists (including, for example: M. M. Cary, S. A. Hessel, C. G. Oliver, T. R. Manley, F. E. Rutkowski, D. B. Stallings and J. E. Turner, and H. P. Wilhelm).

As you browse through this issue you will spot a number of personal testimonials by the authors. I'll confess too. My parents were always in cahoots with Charles. This makes it difficult to pinpoint a first event, but certainly my die had been irretrievably cast by 1968, when as a pre-teen I was propelled into summer sleepaway camp in the wooded Berkshires of Massachusettes with a net and copies of the classic Nearctic works by Klots and Holland. That July, by chance, the cabin of eight boys included a fellow by the name of Jeff Ingraham, who, to my sheer astonishment and delight, proved to be another incipient lepidopterist of equal conviction. Five more summers in the Berkshires followed. Each summer found the two of us again sharing a cabin, generally haranguing our bunkmates with larval escapees, endless latinized names, and tales of pre-dawn forays into the camp's "automats"—the brightly lit bathrooms that invariably attracted the choicest moths (Jeff, I still kick myself knowing you snagged that Sthenopis auratus Grote one step ahead of me!).

To close the circle, it turned out that Jeff's independent source of inspiration was his pediatrician, Dave Winter, a colleague of Charles' and a longtime active member in the Lepidopterists' Society (including Editor of the News from 1980-1982). So, matters quickly became hopelessly entangled, for as Jeff and I began to meet other lepidopterists, there didn't seem to be a one among them who hadn't crossed paths with Charles. Before going away to the west coast in the mid 1970s for college, I did volunteer work at the Peabody Museum pinning specimens, joined the Lepidopterists' Society, and got swept into the excitement of the newly formed Xerces Society. I left without a doubt in my mind that I would somehow eventually return to work with Charles on a doctoral project. That came to pass, and our close collaboration continues to date. I can't thank him enough for his guidance and wisdom over the years. Charles, on behalf of the authors and your many other friends and associates, it is an honor and pleasure to dedicate this issue of the Journal to you. Long may The Rem's net keep swinging!

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